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REMARKS

Claims 1-21 and 32-36 were pending and remain for consideration in the present amendment.

Claim 1 has been amended to clarify the cylindrically shaped opening of the process chamber. Support can be found at least in the originally filed Figures. It is believed that the amendments made herein may be properly entered at this time, i.e., after final rejection, because the amendments do not require a new search or raise new issues and further because they reduce issues for appeal.

Reconsideration and allowance of the claims is respectfully requested in view of the following remarks.

First Claim Rejection Under 35 U.S.C. §103(a)

Claims 1-3, 6, 7, 10-14, 16, 18, 19, 21, and 32-35 stand rejected under 35 U.S.C. §103(a), as allegedly unpatentable over Hoke in view of U.S. Patent No. 5,370,738 to Watanabe et al. (hereinafter "Watanabe"). Applicants respectfully traverse.

As discussed in previous responses, for an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Hoke, in view of Watanabe, fails to establish a prima facie case of obviousness because the combination of references fails to teach or suggest Applicants' claimed feature of a cylindrical opening extending through the bottom wall to the top wall to define a substantially cylindrically shaped interior region as recited in independent Claims 1 and 32.

As acknowledged by the Examiner in the most recent Office Action (see Page 3), Hoke does not teach or suggest Applicants' claimed feature of "a cylindrical opening extending through the bottom wall to define a substantially cylindrically shaped interior region". The

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Examiner combines Hoke with Watanabe to purportedly teach or suggest this feature. However, upon a careful review of Watanabe, it is clear that the combination of references still fails to teach or suggest this claimed feature.

Although Watanabe does teach a cylindrical shaped reactor, the cylindrical shape of the reactor is laterally defined. That is, the cylindrical shaped interior region of Watanabe extends from one sidewall to a diametrically opposing sidewall, which makes sense since Watanabe (like Hoke) is directed to horizontal MOCVD reactors (see Watanabe, Figures 1 and 2). This is markedly different from "a cylindrical opening extending through the bottom wall to define a substantially cylindrically shaped interior region" as claimed by Applicants. As such, the cited combination of references fails to teach or suggest all claim elements and, thus fails to establish a prima facie case of obviousness.

As a prima facie case of obviousness has not been established against independent Claims 1 and 32, these claims are patentable over the cited references. Given that Claims 2, 3, 6, 7, 10-14, 16, 18, 19, 21 and 33-35 each further limit and ultimately depend from one of these independent claims, they too are patentable.

Other Claim Rejections Under 35 U.S.C. §103(a)

Claims 4, 5, 8, 9, 15, 17, 20, and 36 stand rejected under 35 U.S.C. §103(a), as allegedly unpatentable over Hoke and Watanabe in varying combinations of references including U.S. Patent No. 6,383,330 to Raaijmakers et al., an STIC translation of JP02-15221 to Mikio Takagi et al., U.S. Patent No. 5,228,501 to Tepman et al., U.S. Patent No. 4,839,145 to Gale et al., U.S. Patent No. 5,190,592 to Chazee et al., U.S. Patent No. 6,355,108 to Won et al. Applicants respectfully traverse.

For reasons previously discussed, a prima facie case of obviousness has not been established against independent Claims 1 and 32 based on the Hoke and Watanabe references. The cited combination of references fails to teach or suggest Applicants' claimed feature of "a cylindrical opening extending through the bottom wall to the top wall to define a substantially cylindrically shaped interior region", as recited in independent Claims 1 and 32. The cited

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combination of references produce horizontal MOCVD reactors having a cylindrical shaped interior region that extends from one sidewall to a diametrically opposing sidewall of the reactor, which is markedly different from Applicants' claimed reactor assembly.

Since rejected Claims 4, 5, 8, 9, 15, 17, 20, and 36 variably depend from one of these independent claims, a prima facie case of obviousness has not been established against these claims for at least the same reason and the rejection should be withdrawn.

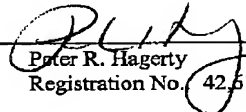
It is believed that the foregoing remarks fully comply with the Final Office Action and place the application in condition for immediate allowance, which action is earnestly solicited.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' Attorneys.

Respectfully submitted,

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